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# ANNUAL REPORT

APR 21 1955



## The Mineral Exploration Corporation

L I M I T E D

(No Personal Liability)

REPORTS OF OPERATIONS AND  
BALANCE SHEET FOR THE YEAR  
ENDING SEPT. 30th, 1954









## BOARD OF DIRECTORS AND OFFICERS

President and Director	- - -	NORMAN VINCENT
Vice-President and Director	- -	ARTHUR W. WHITE
General Manager and Director	-	W. ROY DUNBAR, B.A.Sc., P.Eng.
Secretary-Treasurer	- - -	VERNON FRANKLIN BOWMAN, C.P.A.
Director	- - - - -	CHARLES R. DIEBOLD
Director	- - - - -	JAMES A. GARDNER
Director	- - - - -	CECIL H. SUMMERFELDT, D.D.S.
Director	- - - - -	JAMES H. G. WALLACE



## Report of the President

To the Shareholders:

Your Directors submit herewith reports and Balance Sheet, together with the Auditors' Statement, covering operations for year ending September 30th, 1954.

Your Company continued the exploration of the million acre Cape Breton "closure" area held in conjunction with its wholly owned subsidiary, Cape Breton Metals Limited, with satisfactory results. At Meat Cove a much greater area of zinc mineralization has been indicated and this has been found to contain commercially important amounts of germanium associated with the zinc. The surface work having indicated a large tonnage potential with commercially important metal content, work is now in progress to test vertical continuity and prove up tonnage and grade. Assuming sufficient tonnage of ore will be found, we believe that the very favourable metallurgical qualities of the ore together with the advantage of its location will result in a very low cost profitable production operation. Further investigation of the Rocky Brook area has indicated an extensive belt of mineralization carrying copper, zinc and lead in promising amounts. Our exclusive right to the minerals except coal in this closure has been extended to December 31, 1956. Your Company's total expenditure on this exploration including advances to Cape Breton Metals Limited from commencement of operations to September 30, 1954 amounts to \$201,968.25.

Goldmaque Mines Limited which is controlled by your Company, acquired by outright purchase nine unpatented mining claims contiguous on the north to Geco Mines Limited and Willroy Mines Limited in the Manitouwadge area; also Goldmaque purchased outright the four Gun claims adjoining its original 13-claim group in the Lake Athabaska uranium area.

An account of the exploration operations of Goldmaque Mines Limited and of Cape Breton Metals Limited is given in the report of the General Manager.

Your Company holds the following properties on which no work has been done during the past year:

(a) The mineral rights of 105 acres described as east half of Lot four, Concession VI in Township of Marmora contiguous to the Marmorton Mining Company, wholly owned subsidiary of Bethlehem Steel Company of Pennsylvania, U.S.A.

(b) An option is held on nine unpatented mining claims in the Omineca Mining Division, British Columbia. Sufficient work and sampling have been done to indicate that the property is a very promising gold prospect, which warrants systematic exploration by diamond drilling.

The thirty-six claims held by your Company in Hyman Township in the Blind River-Algoma uranium field have been consolidated with adjoining groups in Baranouri Uranium Mines Limited. Baranouri holds an option on 26 unpatented mining claims in the Tashota area of Ontario where important copper discoveries have been reported. Your Company controls Baranouri through its large share holding.

We made reconnaissance of uranium exploration activities and examined three properties in the Plateau area of the U.S.A. with a view to participating in the exploration and production of uranium ore.

Your Company also participated in a prospecting syndicate operating in Ontario.

Respectfully submitted on behalf of the Board of Directors.

NORMAN VINCENT,

President.



# THE MINERAL EXPLORATION CORPORATION LIMITED

(No Personal Liability)

(Incorporated under the Quebec Mining Companies' Act)

## Balance Sheet

30th September, 1954

### ASSETS

#### CURRENT ASSETS

Cash on Hand and in Bank .....	\$	159.94	
Service and Other Deposits .....		449.00	
Accounts Receivable .....		5,828.42	\$ 6,437.36

#### INVESTMENTS AND ADVANCES

Shares in Other Mining Companies, at cost .....	711,177.35	
Advances to Cape Breton Metals Limited .....	201,434.70	912,612.05

PARTICIPATION IN PROSPECTING SYNDICATES, at cost ..... 2,375.00

#### FIXED ASSETS

Office Furniture and Equipment, at cost .....	\$	9,101.75	
Leasehold Improvements, at estimated cost .....		3,500.00	
Mining Claims and Properties,			
Acquired by the issue of 1,350,000 shares of the Capital Stock of the Company,			
at par value .....	\$	1,350,000.00	
950 shares at a premium of \$1.00 per share .....		1,900.00	
Acquired for cash .....		4,802.36	1,356,702.36
			1,369,304.11

#### DEFERRED ASSETS

Administrative and Development Costs .....	\$	86,518.41	
Expenditures on Outside Properties .....		11,883.02	
Organization Expense .....		2,601.97	101,003.40
			<u>\$ 2,391,731.92</u>

### LIABILITIES AND CAPITAL

#### CURRENT LIABILITIES

Bank Overdraft .....	\$	11,005.10	
Accounts Payable and Accrued Charges .....		17,312.85	
Director's Loan .....		1,124.86	\$ 29,442.81

#### CAPITAL

Capital Stock			
Authorized 10,000,000 shares of par value \$1.00 each .....	\$	10,000,000.00	
Issued and Fully Paid 3,062,864 shares .....	\$	3,062,864.00	
LESS: Discount thereon .....		490,300.00	
		\$ 2,572,564.00	
Capital Deficit			
Loss on Sale of Investments .....		210,274.89	2,362,289.11
			<u>\$ 2,391,731.92</u>

NOTE: Payments outstanding under Option in respect to the purchase of Mining Claims not reflected in the above Balance Sheet amount to \$41,000.00.

Approved on behalf of the Board:

NORMAN VINCENT, Director.

J. H. G. WALLACE, Director.

#### AUDITORS' STATEMENT

To the Shareholders,  
The Mineral Exploration Corporation Limited,  
TORONTO, Ontario.

We have examined the Balance Sheet of THE MINERAL EXPLORATION CORPORATION LIMITED (No Personal Liability) for the year ended 30th September, 1954. Our examination included a general review of the accounting procedures and such tests of the accounting records and other supporting evidence as we considered necessary in the circumstances.

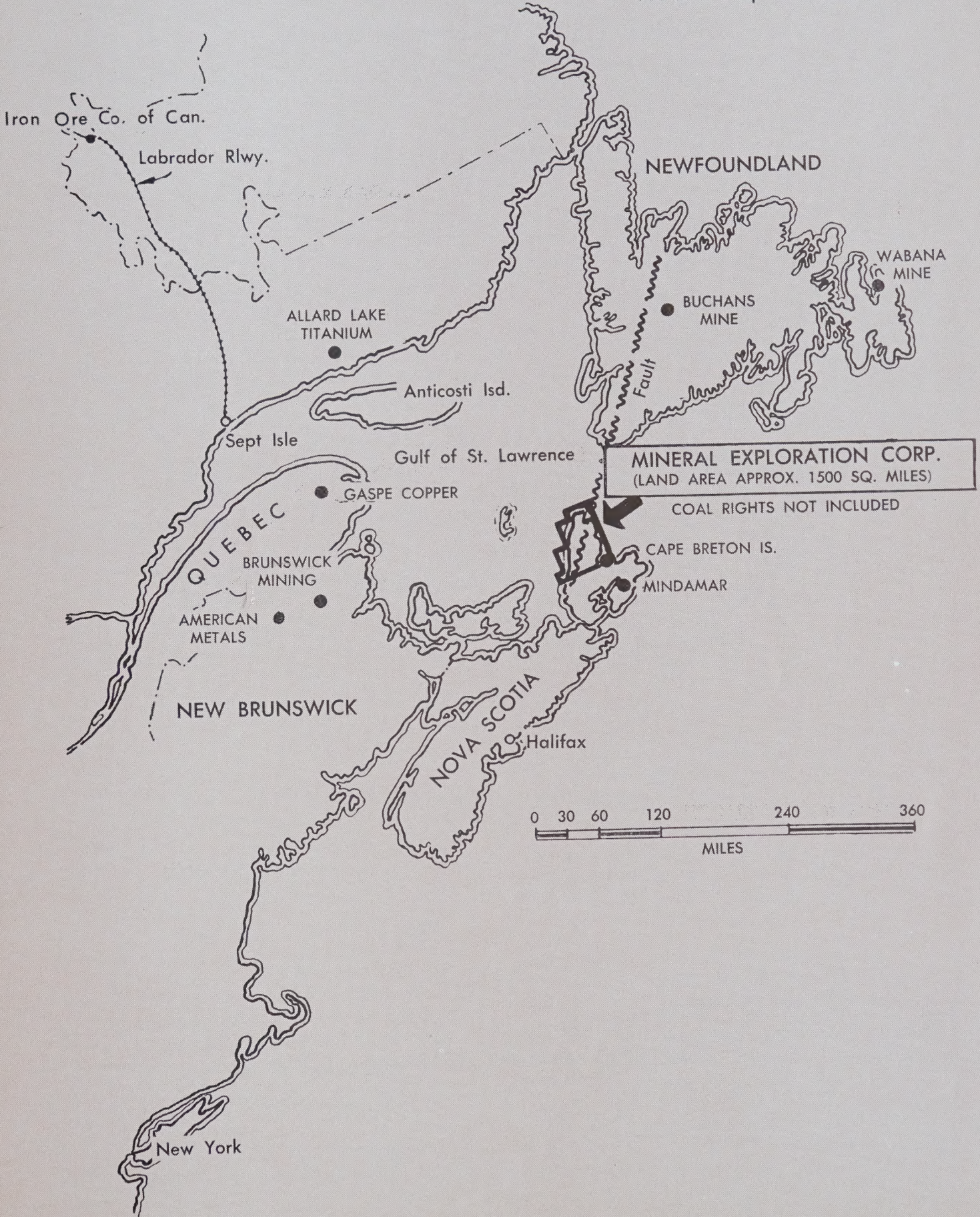
We have received all the information and explanations we have required and subject to the fact that we have not inspected the Company's title to mining properties, we report that in our opinion, the above Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs as at 30th September, 1954, according to the best of our information, the explanations given to us and as shown by the books of the Company.

TORONTO, 17th March, 1955.

MCDONALD, NICHOLSON & CO.,  
Chartered Accountants.



Fault taken from  
Tectonic map of Canada

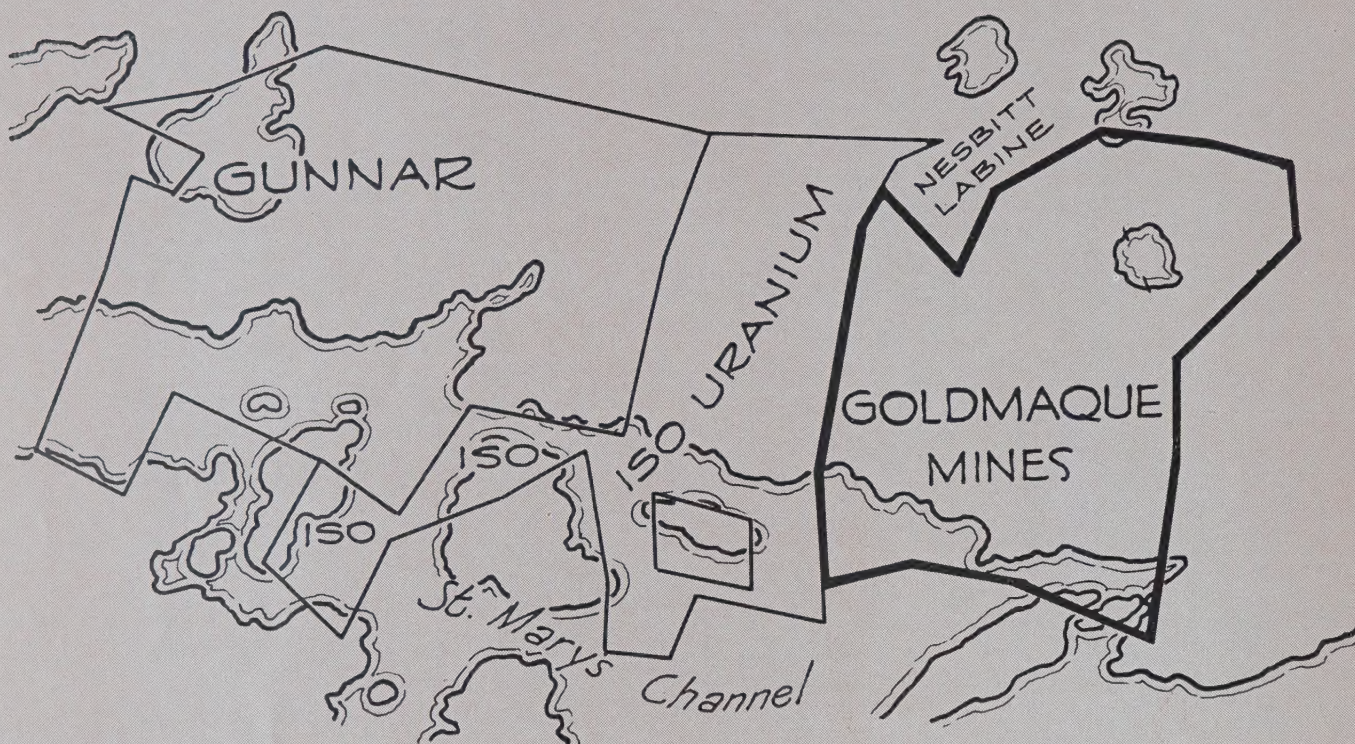




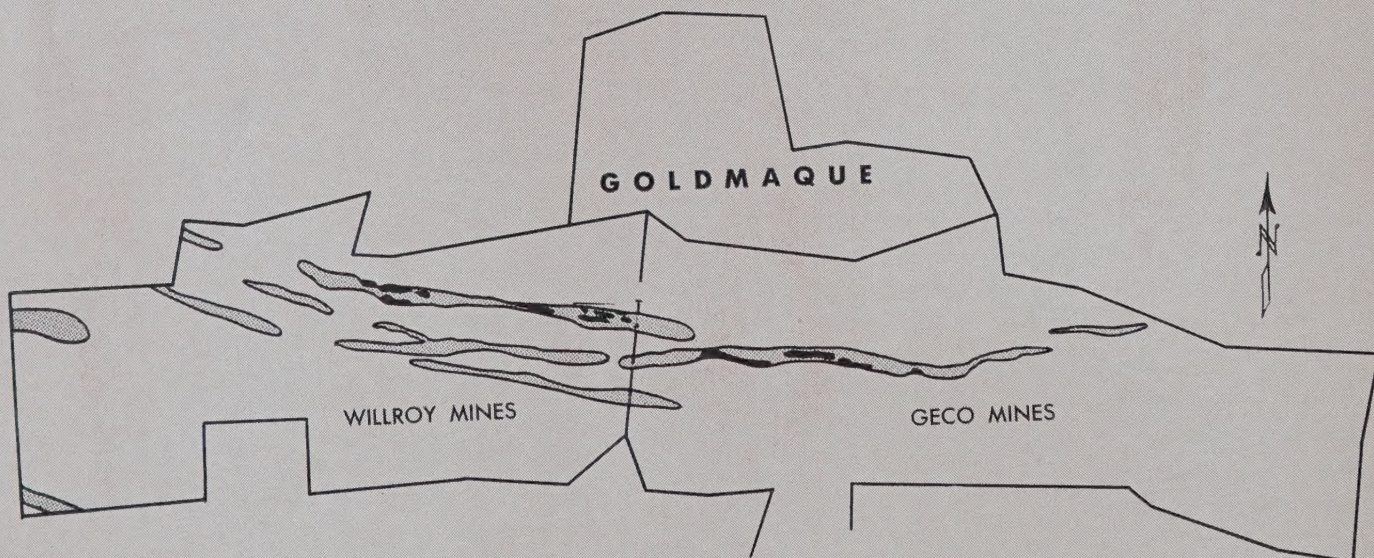
# LOCATION OF GOLDMAQUE MINES LIMITED

PROPERTIES IN THE ATHABASKA AND  
MANITOUWADGE AREAS

## ATHABASKA AREA



## MANITOUWADGE AREA





# Report of the General Manager

## I GOLDMAQUE MINES LIMITED

Four Gun claims and the east boundary of the group of claims held in the St. Mary's Channel area, Lake Athabaska, were surveyed during the past year. This Goldmaque property now consists of 17 unpatented claims. In July we engaged R. W. Johns, a consulting research geologist, to make a mineralogical and geological examination of this entire property and his report was submitted in November last. This examination which included laboratory analysis of over 600 rock samples, found an area with a favourable rock alteration pattern or "halo" on Goldmaque property suggesting major ore possibilities at some depth.

During the past year Goldmaque carried out a prospecting program on its 9 claims in the Manitouwadge Area. Three diamond drill holes were drilled to check on indications found by an electrical resistivity survey. The overburden in this area was found to be very deep and no sulphide mineralization was found by the drilling. This work was done under the direction of General Engineering Company of Canada as consultants. No further work is contemplated pending developments on adjoining properties.

## II CAPE BRETON CONCESSION OR CLOSURE

Prospecting and exploratory work was continued during the past year under the field direction of McPhar Geophysics Company Limited.

### (a) Meat Cove Area

A total of 5,861 feet of diamond drilling was done last winter to explore ground between the initial zinc discoveries. Chemical prospecting methods employed during the past season led to the discovery of a large and important extension of the zinc structure which has been confirmed by test pitting.

The potentials of the zinc mineralized areas sampled at September 30th last are estimated as follows:

(i) McPhar Geophysics Co. Limited, our consultants, estimate the tonnage potentials and zinc

content of the test pitted area as follows: An area containing 193,000 square feet (equivalent to 16,000 tons per vertical foot) is estimated from the sampling of 34 pits to average 4.14% zinc plus values in germanium and cadmium. Within this area one section of 74,000 square feet averaged 6.6% zinc from 19 pits. Four of these pits outlined a barren zone within this section; so that the average of the 15 pits in mineralization is approximately 8.4% representing an area of 60,000 square feet.

We have complete zinc, germanium and cadmium analyses of the samples representing the two areas last mentioned only. Accordingly, your Management estimates that the indicated potential of the better grade area amounts to approximately 5,500 tons per vertical foot, having an average zinc content between 5% and 13%, a germanium content of approximately 0.031 pounds per ton and a cadmium content of approximately 0.47 pounds per ton. (Probable mean gross value at present quoted metal prices is approximately \$25.00/ton.) Correlation of analyses indicates that the germanium content is closely related to the zinc content.

(ii) At the northern end of the presently known zinc bearing structure, surface sampling and 2 diamond drill holes have indicated a body containing zinc sulphide having an approximate length of 300 feet with average width of 33 feet grading approximately 6.5% zinc. Seven samples of one diamond drill intersection were assayed for germanium and the average is .022 pounds germanium per ton. Recent soil sampling has indicated an extension of this zone to the north.

(iii) The diamond drilling between the areas described under (i) and (ii) above indicated fairly continuous but low grade zinc mineralization. The best section averaged 1.7% zinc over 77 feet at vertical depth of 300 feet below surface.

A diagram showing the indicated extent and pattern of the zinc mineralization known up to January 15, 1955 is enclosed in this report.

The zinc and associated mineralization occurs in a highly metamorphosed dolomitic limestone formation (skarn) apparently where it has been folded and faulted. Here the skarn structure has been traced intermittently over one mile along the regional strike and a similar formation has been located 2.5 miles south of this mineral occurrence.



At the end of the year (September 30th last) decision was made to drive an adit to prove up tonnage and average grade of the extensive mineralized zone which has been test pitted on surface. NOTE: At February 14, 1955 the adit has been driven 335 feet; the first 82 feet was through skarn formation carrying good zinc values; the following 253 feet is in syenite formation and the main zinc bearing skarn area appears to be entered at 335 feet — which appears to check with the surface geology.

**(b) Rocky Brook Area** (*C with double circle on map*)

Prospecting and geological mapping have determined that pyrite, sphalerite, chalcopyrite and galena mineralization occurs in interbedded volcanics and sediments over a belt approximately  $\frac{1}{4}$  mile wide. Much talus material has been found containing up to approximately 5% zinc, 2% lead and 3.7% copper in such combinations as: zinc—4.97%, lead—2%, silver—.48 ounces; zinc—1.49%, copper—2%, lead—2%. Trenching in one locality has traced a zone of mineralization for a length of 500 feet having width from 25 feet to 100 feet. Values in zinc, copper and lead occur throughout with some values in gold and silver. The best section sampled in place averages .6% copper, 2.2% zinc and .23% lead across 24 feet, and the best assay obtained from material in place is 3.4% copper, 3.4% zinc, .5% lead and 1.7 ounces silver over a narrow width at another location.

An extensive program of diamond drilling is required to adequately explore this belt of mineralization, which may be the extension of the base metals area five miles to the north mentioned in last year's report. (B with double circle on map.)

**(c) Base Metal Occurrences in Other Areas**

Sulphides carrying conspicuous amounts of copper and zinc (I with single circle on map) have been found in vicinity of Egypt brook. Disseminated and massive sulphides carrying around 1% zinc and .25% copper have been found in a persistent structure along Grey Glen brook area (A with double circle on map) while low values in copper and zinc over a wide area have been found north of the Ingonish River. (G with single circle on map.)

**(d) Uranium Possibilities**

A systematic ground geiger survey was made over the area of the airborne scintillometer anomaly. No

definite pattern or clue was found to suggest concentrations of uranium. However, the overburden could have been a factor contributing to this indefinite result.

A geological map based on our geological reconnaissance and prospecting work to date is included in this report. It shows the discovered areas of sulphide mineralization considered to be sufficiently promising to warrant additional work together with areas found favourable for further prospecting.

Since we commenced our prospecting operations in this 1,500 square mile closure in May, 1953, we have found a zinc, germanium and cadmium zone of mineralization and have done sufficient work to indicate a large ore potential in the Meat Cove Area. In the Rocky Brook Area and the Cheticamp Area we have found a wide zone carrying copper, lead and zinc with some precious metals. Very little work has been done on this belt of mineralization but the chances appear fairly good for finding large tonnages of base metal ores. Our consultants, McPhar Geophysics Co. Limited, have recommended intensive prospecting of approximately 90 square miles in the 1955 season by means of water and soil testing which we have found by test work done during the past season to be quite efficient. It appears also that it may be feasible to use the airborne electromagnetic method in one small area where chalcopyrite and nickel have been found associated with pyrrhotite. We, therefore, have reason to hope that our rate of mineral discovery may be improved by a larger scale application of the above methods followed up by test pitting or diamond drilling; the more so because the accumulated geological and mineralogical evidence tends to indicate that the part of the closure lying west of the Aspy fault contains substantial potentials of base metals carrying in places significant amounts of rare and precious metals.

I wish to acknowledge the assistance of J. P. Nowlan, Ph.D., Geologist of the McPhar Geophysics Co. Limited, and of the geologists working under his direction in the Cape Breton closure.

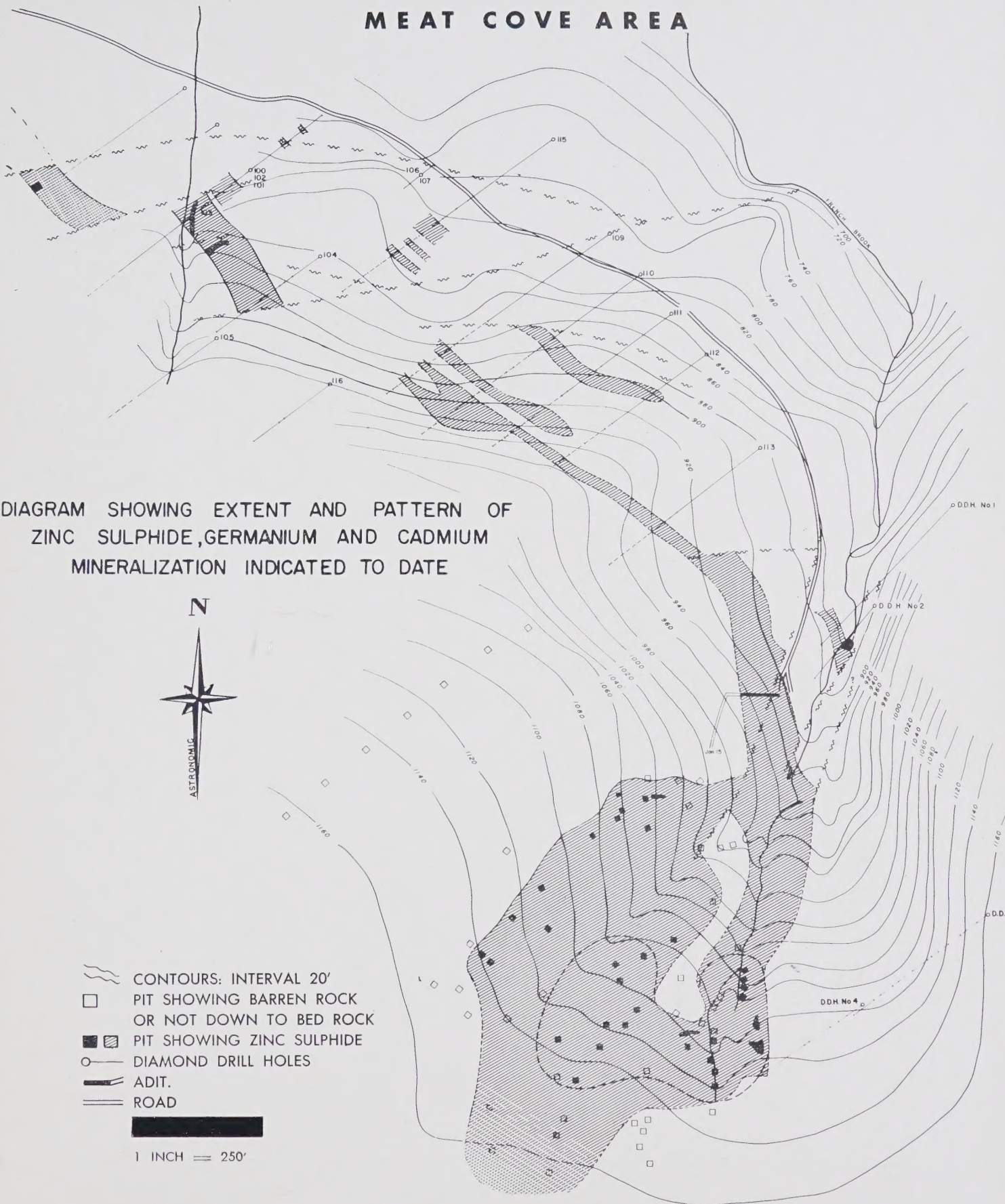
Respectfully submitted,

W. R. DUNBAR, P.Eng.,  
General Manager.

February 24, 1955.



# MEAT COVE AREA









# LEGEND

- Carboniferous sediments
- Pre-Carboniferous  
Volcanics, Schists, Sediments
- Granite, Syenite, Gneiss
- Basic & Intermediate  
Intrusives, Diorite, Gabbro, etc.
- Skarn

- Fault
- Dip and strike bedding
- Dip and strike shear and break
- Synclinal axis
- Anticlinal axis

- Areas not included  
in closure
- Area with mineral deposit  
of probable economic importance  
Zn, Ge, Cd, Ag.
- Area with mineral deposit  
warranting intensive work  
Cu, Pb, Zn.

- Area with mineral indications  
warranting thorough prospecting

- Concessions
- Roads

## MINERAL EXPLORATION CORPORATION

LIMITED

Annual Report 1954

Gulf of St Lawrence

Atlantic Ocean

CHETICAMP

St. Lawrence Bay

MEAT COVE

DINGWALL HARBOUR

Neil Harbour

North Bay Ingonish

South Bay Ingonish

Probably some Skarn Areas

Pegmatites

Ann's Bay

Great Bras D'or

St Andrew Channel

GENERAL GEOLOGICAL MAP  
CLOSURE 1 - CAPE BRETON

SCALE

1 INCH = 4 MILES



